

## IN THE CLAIMS:

Please amend claims 1 and 2 as follows:

1. (Currently Amended) A method for removing an acidic component contained in an exhaust gas comprising:

(a) introducing raw seawater <sup>and the exhaust gas</sup> into a gas-liquid contact apparatus

composed of an absorption column provided internally with at least one perforated plate at the top, bottom, or both top and bottom of the absorption column packed with at least one type of fillers to thereby effect an exhaust gas-seawater counter current contact treatment,

*according to fig. 2, mix 1st then oxidize. or is it simultaneous?*  
(b) oxidizing the acidic component absorbed in the seawater, after the gas-liquid contact, with air in an oxidation apparatus, and

*C*  
(c) mixing the raw seawater, subjected to the oxidation with air, with raw seawater with the seawater, whereby the exhaust gas and the oxidized seawater <sup>is</sup> are discharged, without using chemicals, to the ocean, wherein the seawater <sup>s</sup> introduced into a gas-liquid contact apparatus including an absorption column having a column diameter of at least 500 mm and provided with at least one perforated plate having a free-space ratio  $F_c$  of 0.25 to 0.5 and packed with at least one type of <sup>6</sup> packing material to a packing height of 0.5m to 4m, in such an amount that a ratio  $L/G$  of the flow rate  $L$  ( $\text{kg/m}^2 \cdot \text{hr}$ ) of the seawater to the flow rate  $G$  ( $\text{kg/m}^2 \cdot \text{hr}$ ) of the gas to be treated from the top of the column is at least 3.6 and a flow rate  $L$  of the seawater is <sup>wherein the exhaust gas is introduced into the gas-liquid contact apparatus</sup>  $1 \times 10^4$  to  $25 \times 10^4 \text{ kg/M}^2 \cdot \text{hr}$  and introducing a treated gas in such an amount that a range of a superficial gas velocity  $U_g$  in the apparatus from the bottom of the gas-liquid contact apparatus is less than  $2 U_{gm}$  (m/sec);

$$U_{gm} = 49.14 F_c^{0.7} (\rho_G/\rho_L \times 10^{-3})^{-0.5} \cdot (L/G)^{-1/3} \cdot \sqrt{g \cdot L}$$

wherein L is a capillary constant  $\sqrt{2\sigma/\rho_L \cdot g}$

g is a gravitational acceleration (m/sec<sup>2</sup>), and

σ is a surface tension of seawater (kg/sec<sup>2</sup>)

in the case of using a perforated or grid plate column without weir and

downcomer composed of at least one perforated plate and the ratio  $\rho_G/\rho_L$  of the density  $\rho_G$  (kg/m<sup>3</sup>) of the treated gas to the density  $\rho_L$  (kg/m<sup>3</sup>) of seawater is at least  $0.838 \times 10^{-3}$ .

2. A method as claimed in claim 1, wherein the free-space ratio  $F_c$  is 0.3 to 0.4 and the ratio  $L/G$  is 7 to 25, whereby the seawater is introduced into a gas-liquid contact apparatus including an absorption column having a column diameter of at least 500 mm and provided with at least one perforated plate having a free space ratio  $F_c$  of 0.25 to 0.5 and packed with at least one type of packing material to a packing height of 0.5 m to 4 m, in such an amount that a ratio  $L/G$  of the flow rate  $L$  (kg/m<sup>2</sup>·hr) of the seawater to the flow rate  $G$  (kg/m<sup>2</sup>·hr) of the gas to be treated from the top of the column is at least 3.6 and a flow rate  $L$  of the seawater is  $1 \times 10^4$  to  $25 \times 10^4$  kg/M<sup>2</sup>·hr and introducing a treated gas in such an amount that a range of a superficial gas velocity  $U_g$  in the apparatus from the bottom of the gas-liquid contact apparatus is less than  $2 U_{gm}$  (m/sec):

— in the case of using a perforated or grid plate column without weir and downcomer composed of at least one perforated plate and the ratio  $\rho_G/\rho_L$  of the density  $\rho_G$  (kg/m<sup>3</sup>) of the treated gas to the density  $\rho_L$  (kg/m<sup>3</sup>) of seawater is at least

$$0.838 \times 10^{-3}$$

$$U_{gm} = 49.14 \cdot Fe^{0.7} (\rho_G / \rho_L \times 10^{-3})^{-0.5} \cdot (L/G)^{-1/3} \cdot \sqrt{g \cdot L}$$

wherein  $L$  is a capillary constant  $\sqrt{2\sigma / \rho_L \cdot g}$ ;

$g$  is a gravitational acceleration ( $m/sec^2$ ), and

$\sigma$  is a surface tension of seawater ( $kg/sec^2$ )

3. (Cancelled)

4. (Cancelled)

5. (New) A method as claimed in claim 1, wherein said exhaust gas is exhausted from a boiler.